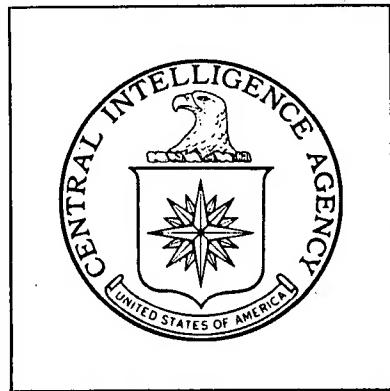


**Top Secret**



**DIRECTORATE OF  
INTELLIGENCE**

**Industrial Facilities  
(Non-Military)**

*Basic Imagery Interpretation Report*

**Kuang-chou Chemical Fertilizer Plant**

**Kuang-chou, China**



25X1

**Top Secret**



25X1

RCS 13/0069/69  
DATE DECEMBER 1968  
COPY 95  
PAGES 6

**Page Denied**

RECORD COPY	COPY NO.	PUB. DATE	LOCATION	DATE RECEIVED	LOCATION						
Approved For Release 2008/06/12 : CIA-RDP79T00909A000400010007-5											
DISPOSITION DATE(S)				STOCK LEVEL	MINIMUM 1	MAXIMUM 10					
CUT TO COPIES 0	DATE 1-75	CUT TO COPIES	DATE	COPIES DESTROYED							
CUT TO COPIES	DATE	CUT TO COPIES	DATE								
CUT TO COPIES	DATE	MASTER	DATE								
DATE		RECEIVED OR ISSUED	NUMBER OF COPIES		DATE	RECEIVED OR ISSUED	NUMBER OF COPIES				
MO.	DAY		REC'D	ISS'D			BAL	MO.	DAY	YR.	REC'D
1	7	69	Dist. Unit #104-113		10	10					
11	18	70	NPIC #104		1	9					
12	27	73	Dist #9 105-113		9	0					
Save											
TITLE NPIC		SEC. CLASS.		LOCATION							

Dec 1968 ms /p /k

Approved For Release 2008/06/12 : CIA-RDP79T00909A000400010007-5

25X1

**TOP SECRET RUFF**

25X1

25X1

IMAGERY ANALYSIS SERVICE

RCS - 13/0069/69

INSTALLATION OR ACTIVITY NAME		COUNTRY
Kuang-chou Chemical Fertilizer Plant		CH
UTM COORDINATES 49QGR446602	GEOGRAPHIC COORDINATES 23-08-20N 113-23-15E	WAC-PIC N 0614-2-B1
MAP REFERENCE [redacted] (SECRET)		25X1 25X1
LATEST IMAGERY USED [redacted]	NEGATION DATE (If required) Not Required	25X1

**ABSTRACT**

The Kuang-chou Chemical Fertilizer Plant was in the final stages of construction when first observed on photography of January 1963. New construction, including ammonium hydroxide production facilities, was begun prior to August 1965. All production facilities at the plant appeared complete and operational on August 1967 photography. The major products of this plant are aqueous ammonia, ammonium sulfate, and superphosphate.

**TOP SECRET RUFF**

25X1

**TOP SECRET RUFF**

IMAGERY ANALYSIS SERVICE

25X1

25X1

25X1

#### INTRODUCTION

The Kuang-chou Chemical Fertilizer Plant is one of China's large producers of ammonia-based compounds and phosphate fertilizers. The plant is located approximately 7 nautical miles (nm) east of the center of Kuang-chou (Canton) on the north side of the Kuang-chou to Kowloon railroad (Figure 1).

A water treatment plant just east of the fertilizer plant treats water received from a tributary of the Chu Chiang River, which is a short distance to the south of the plant. Housing for the plant employees is located about 0.8 nm to the southeast of the plant.

**TOP SECRET RUFF**

25X1

**TOP SECRET RUFF**

IMAGERY ANALYSIS SERVICE

25X1

25X1

**BASIC DESCRIPTION**Physical Features

The plant, rectangular in shape, measures approximately 2,500 by 2,200 feet and occupies approximately 125 acres. The plant is rail served and secured by a wall on three sides (Figure 2). A row of trees along the west side of the plant probably obscures a fence (Figure 3).

Operational Functions

The primary function of this plant is the production of ammonia-based and phosphate fertilizers. The major production components are depicted and annotated on the line drawing (Figure 2). Ammonia is synthesized by combining hydrogen obtained from the "make run" and nitrogen obtained from the "blow run" of the water gas retorts (Item 3). Part of this ammonia is reacted with sulfuric acid to make ammonium sulfate (Items 19-21) and the remaining ammonia is dissolved in water to produce ammonium hydroxide (Area D). The superphosphate production facilities (Items 22-26) are not shown on Figure 3.

It should be noted that the two unidentified process buildings near the compressor building are identical to structures near the compressor buildings at nitrogenous fertilizer plants in Chu-hsien, Kai-feng, Shih-chia-chuang, Huai-nan, and Shang-hai (Wuching). As indicated by pipeline connection, these buildings are involved with ammonia associated processes. One of the buildings could possibly produce ammonium bicarbonate, but image characteristics have not yet been well enough established to identify this process from photography.

A small ammonia fertilizer pilot plant is situated in the northeast corner of the plant. An administration area and several support buildings are on the periphery of the production areas.

Status and Activity

The basic plant was in the final stages of construction on photography of January 1963 and reportedly went into the production of ammonium sulfate, ammonia, sulfuric acid, and superphosphate later the same year.<sup>3</sup> Facilities for the production of ammonium hydroxide and a new fertilizer mixing and blending building were under construction on photography of August 1965. These two facilities reportedly went into operation in 1966.<sup>3</sup> Good-quality photography of August 1967 showed all facilities to be complete. The only other new construction since 1965 was additional storage facilities (Figure 2). Vapors rising from the sulfuric acid plant and the ammonium sulfate reactor building and substantial rail traffic observed on the photography since 1965 showed the plant to be in operation (Figure 3).

**TOP SECRET RUFF**

25X1

Approved For Release 2008/06/12 : CIA-RDP79T00909A000400010007-5

**Page Denied**

Next 1 Page(s) In Document Denied

25X1

**TOP SECRET RUFF**

25X1

IMAGERY ANALYSIS SERVICE

REFERENCES

25X1

Maps

[REDACTED] US Air Target Chart, Series 200, Sheet M0614-6HL, 4th  
edition, Dec 64, Scale 1:200,000 (SECRET) [REDACTED]

25X1

25X1

25X1

Documents

1. CIA/IAD. PIR 65051, Kuang-chou Chemical Fertilizer Plant, Kuang-chou, China, November 1965 (SECRET) [REDACTED]

25X1

25X1

2. CIA. [REDACTED] Information Report, The Canton Fertilizer Plant, July 1966. (CONFIDENTIAL)

25X1

25X1

3. DOD. [REDACTED] Intelligence Information Report, Fertilizer Plant in Tanghsia (SECRET) [REDACTED]

25X1

25X1

25X1

Requirement

EXSUBCOM - BR-N/002-69

25X1

**Top Secret**

**Top Secret**